In the Claims:

Please amend claims 1-11, and add new claims 12-14 as indicated below. This listing of claims replaces all prior versions.

1. (Currently amended) An electromechanical transducer ~~(1)~~ for transducing an electrical input signal into an electrical output signal, the transducer comprising:

- a substrate ~~(10)~~,

- an electrically conductive resonator element ~~(20)~~ attached to the substrate ~~(10)~~, the resonator element ~~(20)~~ extending in a longitudinal direction having a length ~~(l)~~, the resonator element including a deformation-free part, a first part that extends a first length from one side of the deformation-free part in the longitudinal direction, and a second part that extends a second length from the other side of the deformation-free part in the longitudinal direction, the resonator element being attached to the substrate only in the deformation-free part, and

- an electrically conductive actuator ~~(30)~~ able to receive an electrical actuation potential difference with respect to the resonator element for inducing an elastic deformation of the resonator element ~~(20)~~, the actuation potential difference being a function of the input signal, the elastic deformation comprising a change ~~(dl)~~ of the length ~~(l)~~, the resonator element ~~(20)~~ comprising a resistor with an ohmic resistance which is a function of the change ~~(dl)~~ of the length ~~(l)~~, the output signal being a function of the resistance.

2. (Currently amended) A transducer ~~(1)~~ as claimed in claim 1, wherein ~~the resonator element (20) comprises a first part (201) having a first length in longitudinal direction, and a second part (202) having a second length in longitudinal direction,~~ the elastic deformation ~~comprising~~ includes a change of the first length which is counteracted by a first elastic force ~~(F1)~~, and a change of the second length which is counteracted by a second elastic force ~~(F2)~~, the first elastic force ~~(F1)~~ and the second elastic force ~~(F2)~~ substantially compensating each other ~~(FI+F2 ~ 0)~~ in ~~a~~ the deformation-free part ~~(203)~~ of the resonator element ~~(20)~~, and wherein the ~~resonator element (20) being 20 attached to~~

~~the substrate (10) in a support area (204) comprised in the~~ deformation-free part ~~(203)~~ includes a support area that attaches the resonator element to the substrate.

3. (Currently amended) A transducer ~~(1)~~ as claimed in claim 2, wherein the support area ~~(204) comprises~~ includes a first resonator contact ~~(250)~~ and a second resonator contact ~~(260)~~ that is electrically connected to the first resonator contact ~~(250)~~ by a conductive path comprised in the resonator element ~~(20)~~, the conductive path comprising a point ~~(P)~~ outside the deformation-free part ~~(203)~~.

4. (Currently amended)A transducer ~~(1)~~ as claimed in claim 3, wherein the resonator element ~~(20)~~ has an outer end in the longitudinal direction, the point ~~(P)~~ being at the outer end.

5. (Currently amended) A transducer ~~(1)~~ as claimed in claim 3, wherein the resonator element ~~(20) comprises~~ includes a first material with a first electric conductivity constituting the conductive path, and a second material with a second electric conductivity which is smaller than the first electric conductivity, and wherein every path from the first resonator contact ~~(250)~~ to the second resonator contact ~~(260)~~ which is free from the point ~~(P)~~ comprising the second material.

6. (Currently amended) A transducer ~~(1)~~ as claimed in claim 5, wherein the second material ~~comprises~~ is a dielectric material.

7. (Currently amended) A transducer ~~(1)~~ as claimed in claim 1, wherein the resonator element ~~(20,20*a*)~~ is included in a Wheatstone-type electric circuit, the Wheatstone-type electric circuit comprises a first contact area ~~(25)~~ and a second contact area ~~(26)~~, the first contact area ~~(25)~~ being electrically connected to the second contact area ~~(26)~~ via a first connection and via a second connection arranged parallel to the first connection, the first connection comprising the resonator element ~~(20,20*a*)~~ in series with a second resonator element ~~(20*b*)~~, the second connection comprising a third resonator element ~~(20*c*)~~ in series with a fourth resonator ~~20~~ element ~~(20*d*)~~, the resonator element ~~(20*a*)~~ and the second

resonator element ~~(20*b*)~~ being connected by a first electrical connector comprising a measurement point ~~(28)~~, and the third resonator element ~~(20*c*)~~ and the fourth resonator element ~~(20*d*)~~ being connected by a second electrical connector comprising a reference point ~~(29)~~, the output signal comprising an electrical potential difference between the measurement point and the reference point, the ~~25~~ second resonator element ~~(20*b*)~~, the third resonator element ~~(20*c*)~~ and the fourth resonator element ~~(20*d*)~~ each being substantially identical to the resonator element ~~(20*a*)~~.

8. (Currently amended) A transducer ~~(1)~~ as claimed in claim 7, wherein:

- the resonator element ~~(20*a*)~~ is situated between the first contact area ~~(25)~~ and the second resonator element ~~(20*b*)~~,

- the third resonator element ~~(20*c*)~~ is situated between the second contact area ~~(26)~~ and the fourth resonator element ~~(20*d*)~~, and

- a second electrically conductive actuator ~~(30*c*)~~ for elastically deforming the third resonator element ~~(20*c*)~~ is present.

9. (Currently amended) A transducer ~~(1)~~ as claimed in claim 8, wherein:

- a third electrically conductive actuator ~~(30*b*)~~ for elastically deforming the second resonator element ~~(20*b*)~~ is present, and

- a fourth electrically conductive actuator ~~(304)~~ for elastically deforming the fourth resonator element ~~(20*d*)~~ is present.

10. (Currently amended) A transducer ~~(1)~~ as claimed in claim 1, wherein:

- the resonator element ~~(20)~~ comprises a first resonator element ~~(20*c*)~~ and a second resonator element ~~(20*f*)~~, the first resonator element ~~(20*c*)~~ and the second resonator element ~~(20*f*)~~ being mechanically coupled by a coupling element ~~(16)~~,

- the actuator ~~(30)~~ is able to induce an elastic deformation of the first resonator element ~~(20*c*)~~, and

- the second resonator element ~~(20*f*)~~ constitutes a resistor with an ohmic resistance which is a function of the change ~~(dl')~~ of the length ~~(1')~~ of the second resonator element ~~(20f)~~, the output signal being a function of the resistance of the second resonator element.

11. (Currently amended) An electronic device ~~(50)~~ comprising:

- a signal processor ~~(51)~~ operating with a clock signal, and
- a transducer ~~(1)~~ as claimed in Claim 1 for providing the clock signal.

12. (New) A transducer as claimed in claim 1, wherein the first part of the resonator element includes two parallel conductive elements that are separated from each other by a dielectric material and a first conductive end element that connects the two parallel elements of the first part to each other, the two parallel conductive elements of the first part extending from the one side of the deformation-free part in the longitudinal direction to the first conductive end element.

13. (New) A transducer as claimed in claim 12, wherein the deformation-free part includes a first resonator contact and a second resonator contact that is electrically connected to the first resonator contact by a conductive path that includes the two parallel conductive elements of the first part and the first conductive end element.

14. (New) A transducer as claimed in claim 13, wherein the second part of the resonator element includes two parallel conductive elements that are separated from each other by the dielectric material and a second conductive end element that connects the two parallel elements of the second part to each other, the two parallel conductive elements of the second part extending from the other side of the deformation-free part in the longitudinal direction to the second conductive end element.